

Profile

- 38 of experience in wireless engineering and spectrum management industry.
- Over 20 years at Director level business development and engineering leadership focusing on spectrum management spectrum engineering and spectrum regulatory/policy issues.
- Member of the NTIA Commerce Spectrum Management Advisory Committee (CSMAC), co-chair of several subcommittees. Former CSMAC co-chair.
- Member of FCC Communications Security, Reliability, and Interoperability Council (CSRIC)
- Vice Chair of the Wireless Innovation Forum Board Member
- OnGo Alliance Board Member and Regulatory Officer
- Extensive experience working with all areas of FCC and NTIA.
- Expert knowledge of FCC rules and regulations.
- Expert in fixed microwave network design and spectrum management.
- Expert knowledge on interference calculation methodologies.
- Expert in frequency sharing and management in mixed microwave, satellite, and mobile communications systems environments.
- IEEE Life Member
- BSEE, University of Maryland

Work Experience

CommScope, Inc

1983 – Present

Director, Business Development & Regulatory Policy

2000 – Present

Responsible for strategic business and engineering assessment of the emerging telecommunications marketplace. Duties include identifying and developing business initiatives, assessing new markets, analyzing and developing tangible business opportunities, and developing strategic directions for Comsearch. Focus areas include spectrum management, wireless engineering and technologies, healthcare, dynamic spectrum access, spectrum access systems and database-enabled sharing, cognitive radio, point-to-point microwave, microwave relocation, wireless databases, Smart Grid, and wind energy. Lead Comsearch's regulatory efforts and drive product development in areas such as CBRS, AWS, 600 MHz, TV White Space, 3.5 GHz and Spectrum Access System, MBAN, WMTS, etc. Speak frequently at industry forums and conferences on topics related to spectrum sharing and spectrum management. Lead expansion of Comsearch business into existing and adjacent markets to meet growth, diversification, and financial objectives. In addition to the commercial wireless industry areas of focus include Federal government and healthcare.

Accomplishments:

- Testified before the U.S. Senate Committee on Commerce, Science and Transportation Subcommittee on Communications, Technology, Innovation, and the Internet on The State of U.S. Spectrum Policy
- Appointed by the U.S. Secretary of Commerce to the Commerce Spectrum Management Advisory Committee (CSMAC). Former Co-Chair; also co-chair of several subcommittees.
- Acted as facilitator between Industry and DoD to negotiate sharing processes with systems in the 1.7 GHz AWS-3 band.
- Collaborated with industry experts on 4G Americas paper on Spectrum Sharing; wrote several sections.
- Worked with Federal spectrum users and AWS licensees to develop frequency coordination

- procedures to allow for early AWS deployment.
- Coordinated industry efforts to obtain data and understand Federal use of 1.7 GHz AWS spectrum.
- Successfully placed microwave planning tool, iQ.link, at NTIA to streamline fixed link transition from 1.7 GHz bands.
- Worked with CTIA to develop CITA Spectrum Clearinghouse.
- Worked with CITA to conduct three AWS-1 coordination symposia.
- Work with industry representatives to develop spectrum sharing and regulatory criteria between Aeronautical Telemetry and Medical Body Area Network systems.
- Prepare and file Comsearch comments to most FCC and NITA rulemakings.
- Led Comsearch's efforts in working with the American Society for Healthcare Engineering as their technical partner for WMTS frequency coordination.

Director, Comsearch Center for Technical Training	<i>1998 – 2000</i>
Director, Spectrum Sharing Engineering	<i>1996 – 1998</i>
Sr. Technical Advisor, Wireless Engineering	<i>1993 – 1996</i>
Senior Engineer, Personal Communications	<i>1992 – 1993</i>
Senior Engineer, Transmission Planning	<i>1990 – 1992</i>
Engineer, Engineering Development Group	<i>1989 – 1990</i>
Engineer, Systems Engineering	<i>1987 – 1989</i>
Associate Engineer, Microwave and Satellite	<i>1985 – 1987</i>
Associate Engineer, Mass Media	<i>1983 – 1985</i>
Singer Link Simulations Systems Division Hardware Engineer	1979 – 1983

Education

- Bachelors of Science in Electrical Engineering**, University of Maryland, College Park, MD

Affiliations

IEEE (Life Member)
Wireless Innovation Forum (member Board of Directors)
National Spectrum Management Association

Publications

- Several articles and blogs on spectrum and related topics*
- Harnessing Your Wireless Environment: Problems Avoided and Lessons Learned*, American Society for Healthcare Engineering of the American Hospital Association, **PDC, 2006**
- Making Wireless Technology Work in Your Hospital*, Association for the Advancement of Medical Instrumentation, IT Horizons, 2006
- Now is the time to register your wireless medical telemetry*, *Health Facilities Management*, 2003

- *Microwave Relocation: The Goldilocks Approach*, PCS Sourcebook, 1996
- *Spectrum Sharing Assists in Quick PCS Deployment*, Cellular Integration, 1996
- *Microwave Relocation and its Impact on PCS Deployment*, PCIA Journal, 1995
- *Designing PCS Around Incumbent Microwave*, NABER, 1994
- *Influence of Various PCS Spectrum Allocation Schemes on the Ability to Share Spectrum with Incumbent Microwave Users in the 1850 - 1990 MHz Band*, IEEE 1st ICUPCS, 1992

Personal

Commercial Pilot, Instrument Rated

Amateur Radio Licensee, General Class